

# PATENT ABSTRACTS OF JAPAN

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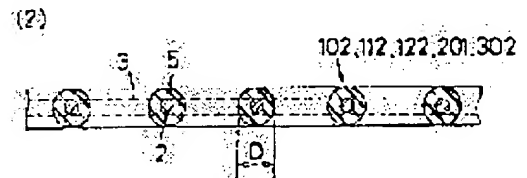
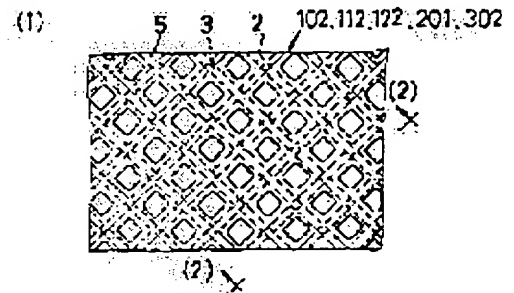
TERANISHI FUTOSHI

## (54) AID FOR WASHING

### (57) Abstract:

PROBLEM TO BE SOLVED: To provide an aid for washing which can be easily produced while preventing laundry from being deformed, shrunk or damaged.

SOLUTION: A sheet-shaped water permeable member 102 has flexibility that enables itself and laundry to be integrally rolled, integrally folded in overlapped state. The water permeable member 102 has a net 3 formed from a linear member 2 and a synthetic resin cover part 5 coating the surface of the linear member 2 in such way that the mesh of the net 3 is not clogged when forming the net 3.



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CLAIMS

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[Claim(s)]

[Claim 1] an auxiliary implement for wash equipped with a sheet-like water flow nature member which has flexibility -- it is -- the water flow nature member -- a line -- a network formed of a member, and its line -- an auxiliary implement for wash which has the covering section made of synthetic resin by which coating was carried out to the member surface.

[Claim 2] the rigidity of the covering section -- a line -- an auxiliary implement [ smaller than the rigidity of a member ] for wash according to claim 1.

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**DETAILED DESCRIPTION**

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[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] This invention relates to the auxiliary implement for wash used in case the washing is washed in cold water with a washing machine.

[0002]

[Description of the Prior Art] In order to reduce the mold collapse and contraction of the washing at the time of washing in cold water with a washing machine, where it had the sheet-like water flow nature member which has flexibility and the water flow nature member and washing are piled up So that it can wind in the shape of a roll in one Or so that it can turn up in one Or while winding in the shape of a roll in one, the auxiliary implement for wash it enabled it to turn up is known, and the network formed by knitting thread as the water flow nature member was used (for example, JP,5-13380,U).

[0003]

[Problem(s) to be Solved by the Invention] When reducing mold collapse and contraction of the washing with the above-mentioned auxiliary implement for wash, it is necessary to regulate the motion to the network of the washing at the time of wash. Then, it is possible to enlarge the touch area of a network and the washing and to regulate slipping over the network of the washing making thick the thread which constitutes the network. However, it becomes difficult for the flexibility of a network to fall from reinforcement being required, if it is made thick, and for the thread which constitutes a network to form a network.

[0004] This invention offers the auxiliary implement for wash which can solve the above-mentioned problem.

[0005]

[Means for Solving the Problem] So that this invention is equipped with a sheet-like water flow nature member which has flexibility, and it may be in a condition which piled up the water flow nature member and washing and can wind in the shape of a roll in one Or so that it can turn up in one It is the auxiliary implement for wash it enabled it to turn up while winding in the shape of a roll in one. Or the water flow nature member a line -- without it plugs up a mesh of a network after formation of a network formed of a member, and this network -- a line -- it is characterized by having the covering section made of synthetic resin by which coating was carried out to the member surface. a line which forms a network according to the configuration of this invention -- since coating of the surface of a member is carried out by the covering section made of synthetic resin, only covering thickness of the covering section can enlarge a touch area of a water flow nature member and the washing. Thereby, slipping over a network of the washing is regulated and mold collapse and a contraction of the washing can be reduced. the covering section -- after formation of a network -- a line -- since coating is carried out to the member surface -- a line -- formation of a network by member does not become difficult

[0006] the rigidity of the covering section -- a line -- it is desirable to be made smaller than the rigidity of a member. This absorbs an impact which acts on the washing at the time of wash according to deformation of the covering section, and a bruise of the washing can be prevented.

[0007]

[Embodiment of the Invention] The auxiliary implement 101 for wash of the 1st operation gestalt shown in (1) of drawing 1 is equipped with the sheet-like 1st copy aquosity member 102, the sheet-like 2nd copy aquosity member 112 with an area smaller than this 1st copy aquosity member 102, and that 2nd copy aquosity member 112 and the sheet-like 3rd copy aquosity member 122 of the same area and the same configuration. In the periphery of the 2nd and the 3rd copy aquosity members 112 and 122, the periphery of the 1st copy aquosity member 102 meets a trapezoid along with a rectangle. The 2nd copy aquosity member 112 and the 3rd copy aquosity member 122 are arranged so that it may receive mutually and may become a mirror image.

[0008] The 2nd [ the ] and the 3rd copy aquosity members 112 and 122 are arranged at one field side of the 1st copy aquosity member 102. The periphery located in the bottom left of drawing Nakagami of the 2nd copy aquosity member 112 and the periphery located in the method of the vertical right of the 3rd copy aquosity member 122 are connected to the periphery of the 1st copy aquosity member 102. You may connect by being mutually sewn on by thread, and heat joining of the periphery of the 2nd [ the ] and the 3rd copy aquosity members 112 and 122 and the periphery of the 1st copy aquosity member 102 may be carried out mutually.

[0009] Let between periphery 122a located between periphery 112a located in the method of the right of the 2nd copy aquosity member 112, and the 1st copy aquosity members 102, and in the left of the 3rd copy aquosity member 122, and the 1st copy aquosity members 102 be the entrance of the washing 1, respectively. Thereby, the washing 1 into which it was put in the auxiliary implement 101 for wash from the entrance can be covered by the water flow nature members 102, 112, and 122.

[0010] Mutually, the 2nd copy aquosity member 112 and the 3rd copy aquosity member 122 are set, and counter [ in / the entrance of one of these and the entrance of another side lap partially in drawing Nakashita one end, and / drawing Nakagami one end ] a gap. That is, after the gap of periphery 112a of the 2nd copy aquosity member 112 and periphery 122a of the 3rd copy aquosity member 122 which constitute each entrance is gradually made small as it goes to the method of drawing Nakashita, and the 2nd copy aquosity member 112 and the 3rd copy aquosity member 122 lap, a lap becomes large gradually as it goes to the method of drawing Nakashita.

[0011] In the auxiliary implement for wash of this invention, each water flow nature members 102, 112, and 122 have the structure shown in (1) of drawing 2, and (2). namely, each water flow nature members 102, 112, and 122 -- a line -- without it plugs up the mesh of a network 3 after formation of the network 3 formed of the member 2, and this network 3 -- a line -- it has the covering section 5 made of synthetic resin by which coating was carried out to the surface of a member 2. the rigidity of the covering section 5 -- a line -- it is made smaller than the rigidity of a member 2. the line which forms that network 3 -- the thread which could use the common thread as a member 2, for example, twisted two or more filaments made of synthetic resin -- a line -- a member 2 -- carrying out -- this line -- a network 3 can be formed by knitting a member 2. As synthetic resin used as the material of the filament, polyester, nylon, polyurethane, polypropylene, etc. can be used, for example. The polyurethane of low density, polyethylene, polypropylene, a polyvinyl chloride, etc. can be used rather than the synthetic resin which considers as the covering section 5, for example, serves as a material of the filament. Especially, polyethylene and polypropylene are desirable in respect of the endurance over resistance, daylight, etc. to a detergent. the line -- the direction size d of a path which applied the covering thickness of the covering section 5 to the path of a member 2 is 1-5mm more preferably 1-10mm 0.5-20mm at the point of making [ many ] a contact with the washing and preventing mold collapse of clothing more. For example, DIP coating can perform coating of the covering section 5. In addition, unless the effect of this invention is spoiled, the 1st copy aquosity member 102 is made into the above-mentioned structure, the same network as the former without the covering section 5 constitutes the 2nd and the 3rd copy aquosity members 112 and 122, or the same network as usual constitutes the 1st copy aquosity member 102, and it is good also considering the 2nd and the 3rd copy aquosity members 112 and 122 as the above-mentioned structure.

[0012] By having flexibility, each water flow nature members 102, 112, and 122 can be rolled in one in

the condition of having piled up with the washing 1, and can be made into the shape of a roll. In addition, it is good as for a periphery side in the 1st copy aquosity member 102, and good as for a periphery side in the 2nd and the 3rd copy aquosity members 112 and 122.

[0013] The rubber band 115 of the shape of a network which may have water flow nature is connected with the 1st copy aquosity member 102, and it can regulate that the washing 1 rolled in the shape of a roll and each water flow nature members 102, 112, and 122 can extend. The rubber band 115 may be separated from the auxiliary implement 1 for wash. As for a means to regulate that the washing 1 rolled in the shape of [ this ] a roll and the water flow nature members 102, 112, and 122 can extend, a carbon button, a hook, a string, a field-like fastener, rubber, a pin, a zipper, a clothepin, etc. can be used other than the rubber band 115.

[0014] In order to wash the washing 1 using the above-mentioned auxiliary implement 101 for wash, the washing 1 is contained for the washing 1 to a cover and the auxiliary implement 101 for wash by the 1st copy aquosity member 102, and the 2nd and the 3rd copy aquosity members 112 and 122. Next, where that washing 1 and each water flow nature members 102, 112, and 122 are piled up, it winds in the shape of a roll in one, it regulates that that washing 1 and each water flow nature members 102, 112, and 122 can extend with the rubber band 115, and in this condition, with the auxiliary implement 101 for wash, the washing 1 is put into a washing machine and washed in cold water.

[0015] In addition, you may regulate that it does not wind in the shape of a roll in one, but turns up in one, or it turns up while winding in the shape of a roll in one, and the washing 1 and the water flow nature members 102, 112, and 122 can extend after an appropriate time where the washing 1 and the water flow nature members 102, 112, and 122 are piled up. Especially the way of turning up is not limited.

[0016] (2) of drawing 1 is the auxiliary implement 200 for wash of the 2nd operation gestalt of this invention. This auxiliary implement 200 for wash is equipped with the flexible band-like members 202 and 203 of the pair replaced with the 1st copy aquosity member 102 of the 1st operation gestalt, the same water flow nature member 201, and the 2nd of the 2nd operation gestalt and the 3rd copy aquosity members 112 and 122. While both the band-like members 202 and 203 meet in the vertical direction in drawing on the water flow nature member 201, it is arranged mutually at abbreviation parallel, and both ends are connected to the periphery of the water flow nature member 201. The washing 1 is inserted by the water flow nature member 201 and both the band-like members 202 and 203. The water flow nature member 201 has the structure shown in (1) of above-mentioned drawing 2, and (2) like the water flow nature member of the 1st operation gestalt. the rigidity of the covering section 5 -- a line -- it is smaller than the rigidity of a member 2. As for each band-like members 202 and 203, it is desirable to consider as the same structure as the water flow nature member 201. While the water flow nature member 201 and both the band-like members 202 and 203 are rolled in the shape of a roll in one in the condition of having piled up with the washing 1, like the 1st operation gestalt, being turned up in one or being wound in the shape of a roll in one, it is turned up and that it can extend can cover the washing 1 by the water flow nature member 200 by being regulated with the rubber band 115.

[0017] The auxiliary implement 301 for wash of the 3rd operation gestalt shown in (3) of drawing 1 is equipped with the water flow nature member 302 of the shape of a sheet to which a periphery meets a rectangle. In one field of the water flow nature member 302, along the periphery of the left in alignment with drawing Nakagami down, and the left half of two peripheries in alignment with the longitudinal direction in drawing, the male flank material 304 of a fastener is attached and the female flank material 305 of a fastener is attached along the periphery of the method of the right in alignment with drawing Nakagami down, and the right half of two peripheries in alignment with the longitudinal direction in drawing. By making it double fold by this along with fold Y which shows the water flow nature member 302 according to a two-dot chain line in drawing, connecting the male flank material 304 and the female flank material 305 of a fastener, and closing a periphery, it can be made saccate and the washing 1 arranged in the storage space of the interior can be covered. In addition, the means which closes the periphery of the water flow nature member 302 is not limited to a fastener. The water flow nature member 302 has the structure shown in (1) of above-mentioned drawing 2, and (2) like the water flow

nature member of each above-mentioned operation gestalt. While the water flow nature member 302 is rolled in the shape of a roll in one in the condition of having piled up with the washing 1, being turned up in one or being wound in the shape of a roll in one, it is turned up and that it can extend can cover the washing 1 by the water flow nature member 302 by being regulated with the rubber band 115.

[0018] The auxiliary implement 401 for wash of the 4th operation gestalt shown in drawing 3 consists of a storage bag 402 of the washing 1, and a fastener 403 which open and close the opening formed near the round edge in the whole surface of the storage bag 402. The formation location of the opening may be formed in the mid-position of the periphery which carries out phase opposite in the whole surface of a storage bag 402, and may be formed along a round edge. The fastener 403 is sewn with thread by the storage bag 402. The storage bag 402 consists of a sheet-like 1st copy aquosity member 404 which has flexibility, and a sheet-like 2nd copy aquosity member 405 which has flexibility, and the washing 1 is covered with both the water flow nature members 404 and 405. both the water flow nature members 404 and 405 show (1) of above-mentioned drawing 2, and (2) like the water flow nature member of the 1st operation gestalt -- as -- a line -- without it plugs up the mesh of a network 3 after formation of the network 3 formed of the member 2, and this network 3 -- a line -- it has the covering section 5 made of synthetic resin by which coating was carried out to the surface of a member 2. Along with a rectangle, it is mutually sewn on by thread, or the periphery section of both the water flow nature members 404 and 405 is connected by heat joining being carried out mutually. When both the water flow nature members 404 and 405 have flexibility, where it could contain the washing 1 to the storage bag 402 easily and the water flow nature members 404 and 405 and the washing 1 are piled up, it can wind in the shape of a roll in one, or can fold:

[0019] You may make it this invention prevent mold collapse of the washing more certainly by the hanger which hooks the washing for example, on a water flow nature member.

[0020]

[Effect of the Invention] According to this invention, mold collapse of the washing, a contraction, and a bruise can be prevented, and the auxiliary implement for wash which can be manufactured easily can be offered.

[0021]

[Example 1] Contraction of the washing when washing a commercial wool yarn 100% sweater as the washing was investigated using the auxiliary implement 101 for wash and the auxiliary implement for wash of the example of a comparison which are shown in the 1st operation gestalt. the covering-section 5 of an example -- the product made of polyvinyl chloride resin -- carrying out -- a line -- the direction size d of a path which applied the covering thickness of the covering section 5 to the path of a member 2 used A-G (0.3mm, 0.5mm, 3mm, 5mm, 7mm, 10mm, and 25mm). moreover, the line which a configuration is the same as that of the 1st operation gestalt, and there is no covering section 5 as an example H of a comparison, and constitutes a network -- the path of a member used what is 0.2mm.

[0022] Wash used the restroom course of the washing machine (NA-F60K2) by Matsushita Electric Industrial Co., Ltd., and repeated it 3 times on condition that the following.

(Washing conditions)

detergent: -- commercial neutral liquid detergent detergent concentration: -- 0.133wt% use water: -- tap water (temperature of 20 degrees C)

The desiccation conditions of garments: It is the temperature of 20 degrees C, and 65% of humidity RH, and is 36 hours [0023]. Contraction of the washing was made into the average of the width of a garment of a sweater, length, and contraction of the skirt. Contraction like each part of the washing made length after L and wash L', and found the width of a garment of the sweater, length, and the length before wash of the skirt from the degree type.

Contraction (%) =  $(L - L') / L \times 100$  [0024] Contraction searched for according to the example 1 is shown in a table 1.

[0025]

[A table 1]

|         |       |         |
|---------|-------|---------|
| 实 施 例 D | 5     | 3 . 3 9 |
| 实 施 例 E | 7     | 3 . 7 9 |
| 实 施 例 F | 1 0   | 3 . 5 6 |
| 实 施 例 G | 2 5   | 3 . 9 2 |
| 比 较 例 H | 0 . 2 | 4 . 2 2 |

[0026]

[Example 2] Contraction of the washing when washing on the same conditions as an example 1 was investigated using the auxiliary implement 401 for wash and the auxiliary implement for wash of the example of a comparison which are shown in the 4th operation gestalt. the line which constitutes a network as an example -- the direction size d of a path which applied the covering thickness of the covering section 5 to the path of a member 2 used I-L (0.5mm, 3mm, 5mm, 10mm, and 25mm). the line which a configuration is the same as that of the 4th operation gestalt, and there is no covering section 5 as an example M of a comparison, and constitutes a network -- the path of a member used what is 0.2mm. Furthermore, it washed as an example N of a comparison, without using the auxiliary implement for wash.

[0027] Contraction searched for according to the example 2 is shown in a table 2.

[0028]

[A table 2]



|         |       |         |
|---------|-------|---------|
| 实 施 例 J | 3     | 3 . 8 8 |
| 实 施 例 K | 5     | 3 . 9 4 |
| 实 施 例 L | 1 0   | 3 . 9 5 |
| 比 较 例 M | 0 . 2 | 5 . 8 9 |
| 比 较 例 N | ————  | 6 . 6 2 |

[0029] According to the example of the above-mentioned tables 1 and 2 to this invention, contraction of the washing can be prevented rather than the example of a comparison.

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DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] For the front view of the auxiliary implement for wash of the 1st operation gestalt of this invention, and (2), the front view of the auxiliary implement for wash of the 2nd operation gestalt of this invention and (3) are [ (1) ] the front view of the auxiliary implement for wash of the 3rd operation gestalt of this invention.

[Drawing 2] (1) of the water flow nature member of the operation gestalt of this invention is a part plan, and (2) is the (2)-(2) line cross section of (1).

[Drawing 3] Front view of the auxiliary implement for wash of the 4th operation gestalt of this invention

[Description of Notations]

1 Washing

2 Line -- Member

3 Network

5 Covering Section

102, 112, 122, 201, 302 Water flow nature member

115 Rubber Band

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[Translation done.]

## 【図面の簡単な説明】

【図1】(1)は本発明の第1実施形態の洗濯用補助具の正面図、(2)は本発明の第2実施形態の洗濯用補助具の正面図、(3)は本発明の第3実施形態の洗濯用補助具の正面図

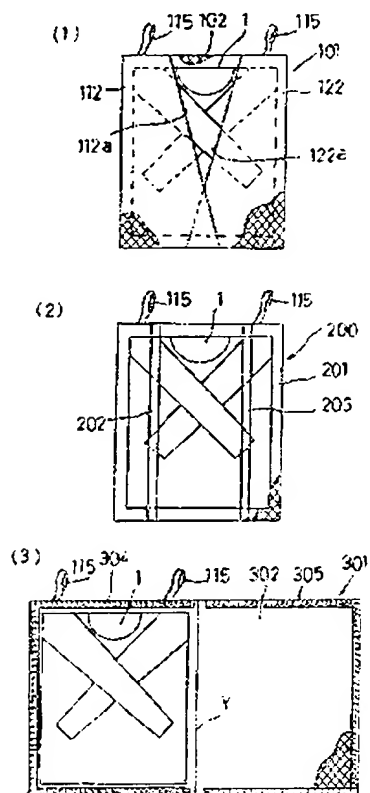
【図2】本発明の実施形態の通水性部材の(1)は部分平面図、(2)は(1)の(2)・(2)線断面図

【図3】本発明の第4実施形態の洗濯用補助具の正面図\*

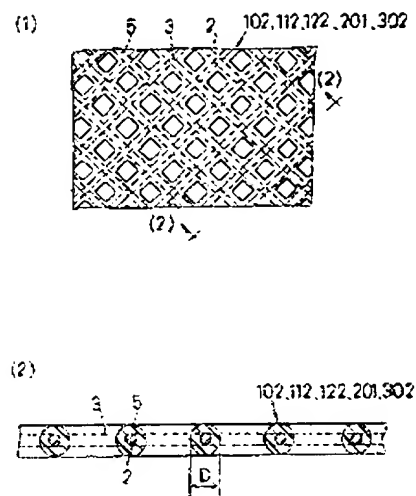
## \*【符号の説明】

- 1 洗濯物
- 2 線状部材
- 3 ネット
- 5 被覆部
- 102、112、122、201、302 通水性部材
- 115 ゴム帯

【図1】



【図2】



【図3】

